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Fig. 1

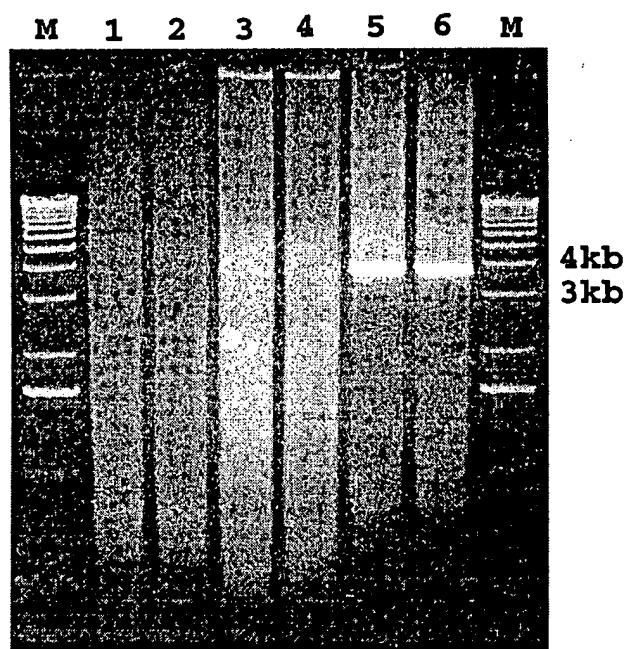


Fig. 2A

Burma	GGEIGHORPSVIPRGNPDANVDTLAAPPSCQISAFHQLAELGHRPVPVAAVLPFPCPELEQGLLYLPQELTTCDSVWTFELTDIVHCRMAAPSORKAVL	100
D11092 China	.....A.....	100
D11093 China	.....A.....	100
HEV-T1 China	.....A.....	100
Hetian China	.....A.....	100
Hyderabad India	.....A.....	100
KS2-87 China	.....A.....	100
L25547 China	.....A.....	100
Madras India	.....A.....	100
Mexico	.....A.....	100
Myanmar	.....A.....	100
Nepal	.....A.....	100
SAR-55 Pakistan	.....A.....	100
Swin HEV USA	.....A.....	100
US1 USA	.....A.....	100
US2 USA	.....A.....	100
X98292 India	.....A.....	100
Avian HEV USA	.....A.....	99
Burma	STLVGRYGRKLYNASHSDVRDSILARFIPAIGPVQVTTCELYELVEAMVEKGDGSAVLELDLCNRDVSRTFFQKDCNKFTTGETIAHGKVGQGISAW	200
D11092 China	.....R.....	200
D11093 China	.....PAG.....	200
HEV-T1 China	.....R.....	200
Hetian China	.....H.....	200
Hyderabad India	.....R.....	200
KS2-87 China	.....R.....	200
L25547 China	.....R.....	200
Madras India	.....R.....	200
Mexico	.....R.....	200
Myanmar	.....R.....	200
Nepal	.....R.....	200
SAR-55 Pakistan	.....R.....	200
Swin HEV USA	.....R.....	200
US1 USA	.....R.....	200
US2 USA	.....R.....	200
X98292 India	.....R.....	200
Avian HEV USA	.....R.....	198
Burma	SKTFCALFGWFRATKAILALLPQGVFYGDADFDDTVF-SAAVAARAKASMFENDFSEFDSTQNNFSLGLECAIMECGMPQWLIRLVHLIRSAWILQAP	299
D11092 China	.....E.....	299
D11093 China	.....E.....	299
HEV-T1 China	.....E.....	299
Hetian China	.....E.....	299
Hyderabad India	.....E.....	299
KS2-87 China	.....E.....	299
L25547 China	.....E.....	299
Madras India	.....E.....	299
Mexico	.....E.....	299
Myanmar	.....E.....	299
Nepal	.....E.....	299
SAR-55 Pakistan	.....E.....	299
Swin HEV USA	.....E.....	299
US1 USA	.....E.....	299
US2 USA	.....E.....	299
X98292 India	.....E.....	299
Avian HEV USA	.....E.....	298

Burma	KESLRGFMKKHSGEPCGTLMMNTVMNMAVITHCYDFRDFQVAAFKGDSDIVLCSEVRQSPGAALVIAAGCLKLKVDYFRPIGLYAGVWVAPGLGALPDVVR	399
D11092 China	.....L.....	399
D11093 China	.....L.....	399
HEV-T1 China	.....A.E.LK.....V.D..RD.....T.....	399
H tian China	.....L.....	399
Hyderabad India	.....L.....MR.....	399
KS2-87 China	.....L.....	399
L25547 China	.....L.....	399
Madras India	.....L.....	399
Mexico	.....S.....I.A.E.L.....V.....GS.....A.....	399
Myanmar	.....L.....	399
Nepal	.....L.....	399
SAR-55 Pakistan	.....L.....	399
Swine HEV USA	.....K.....I.A.E.R.....V.D..RN.A.....Y.....T.....	399
US1 USA	.....K.....I.A.E.R.....V.D..RN.A.....Y.....T.....	399
US2 USA	.....K.....I.A.E.R.....V.D..XRN.A.....Y.....T.....	399
X98292 India	.....L.....	399
Avian HEV USA	.....A...C.....T.LH.V.E.DRPS.LC.....V.V.E.SV.AR.EGVS.V.D...M.DKGTG.C.AFSNLLIF.A.VVC.LL.Q	398
Burma	AGRLTEKNWGPGERAEQLRLAVSDFLRKLTNVAQ--MCVDVVSRYGVSPGLVHNLIGMLQAVADGKAHFTESVKFVLDLTNSILCRVE	487
D11092 China	.....	487
D11093 China	.....S.....C.....-V.....Q.....TI.....TI.....S.IY.....	487
HEV-T1 China	.....K.....DE.I.....	487
Hetian China	.....	487
Hyderabad India	.....S.....	487
KS2-87 China	.....S.....	487
L25547 China	.....S.....	487
Madras India	.....S.....D.....Q.....R.....-I.E.....TIG.....I.....H.MH.S.....	487
Mexico	.....	487
Myanmar	.....	487
Nepal	.....	487
SAR-55 Pakistan	.....	487
Swine HEV USA	.....S.....C.G.....-V.....TI.....TI.....IQ.....	487
US1 USA	.....S.....C.G.....-V.....TI.....TI.....IQ.....	487
US2 USA	.....S.....C.G.....-V.....TI.....NI.....IQ.....	487
X98292 India	.....D.....DIQ.MOD.EQ.CK..VARWTOGKREMLTIQL.AGY...EV.M.EVWV.A.K.C.AARETLVTNRL...N.SKE---D.	487
Avian HEV USA	.....	484

Fig. 2B

**Fig. 3A**

Country	Accession Number	Accession Date	Accession Type	Accession Status	Accession Comments
Burma	CGCCCTGCGCCCTGAGCGCGGAGCACTCGCCCTCGCTGTTACTGATTCTCCGCGAGCTCAGCAATGTTAGCTCAGATCTGCTGCGATCTGTTCTCCGCTGTTATG	110			
Hyderabad India	CG	110			
Madras India		110			
X98292 India		110			
HETIAN China		110			
SAR.55 Pakistan		110			
Mexico		110			
KS2.87 China		110			
D11093 China		110			
D11092 China		110			
Myanmar		110			
HEV-T1 China		110			
US2 USA		110			
US1 USA		110			
Nepal		110			
Swine HEV USA		110			
Avian HEV USA		110			
Burma	G-GTTTCCCTGACTCGTTTCATACCTGATGGCATGCTACAGCGCTGTTGCTCATGCCAAGCA-CATTTCAC-TCAGTCAGTAACCCAGTCGCTGAGCTTGCAAAAT	217			
Hyderabad India		217			
Madras India		217			
X98292 India		217			
HETIAN China		217			
SAR.55 Pakistan		217			
Mexico		217			
KS2.87 China		217			
D11093 China		217			
D11092 China		217			
Myanmar		217			
HEV-T1 China		217			
US2 USA		217			
US1 USA		217			
Nepal		217			
Swine HEV USA		217			
Avian HEV USA		217			



Fig. 3C

Burma	CCCCATATTCATCCAAACCCCTTCGCCGCCCGATGTACCGCTGGCGCGGGTGGACCTCGTGTTCGCCAACCCGCCGACCACTCGGCTCGGCTTGGCGTGACC	546
Hydarabad India	.....GA.....T.....C.....	546
Madras India	.....T.....C.....	546
X98292 India	.....C.....	546
HETIAN China	.....T.....	546
SAR.55 Pakistan	.....T.....	546
Mexico	.....T.....A.C.TG.....T.....A.....G.....A..TC	546
KS2.87 China	.....T.....	546
D11093 China	.....T.....	546
D11092 China	.....T.....	546
Myanmar	.....T.....	546
HEV-T1 China	.....AT.T.CA.TC.A.C.....A.....G.....CCC.G.G.AAT..T.....	541
US2 USA	.....G.....GTTT.ACAAC.....A.CCC.A.G.G.....C.C.T.N.....	543
US1 USA	.....G.....GTTT.ACAAC.....A.CCC.A.G.G.....C.C.T.....	543
Nepal	.....TG.....GTTT.ACAAC.....GT.CCC.A.G.G.....C.C.T.....	546
Swine HEV USA	.....G.....A.GCA.CCG.G.CCAG.....G.GT..A.T.CA..C.A..A.CACT.	543
Avian HEV USA	.....G.....A.GCA.CCG.G.CCAG.....G.GT..A.T.CA..C.A..A.CACT.	445

\*\*\*ORF3 (HEV)

Burma	AGGCCAGCGCCCGGTTGCTCAGCTCAGTGTAGACCTACACAGCTGGCGCGCGCTAAACCGGTCGCTCCGGCCCATGACACCCGCCGATGCTGTCG	625
Hydarabad India	.....C.....C.....T.....	625
Madras India	.....A.....C.....T.....	625
X98292 India	.....T.....G.....G.T.G.G.T.....T.A.C.C.G.C.T.	625
HETIAN China	.....T.....G.....G.T.G.G.T.....T.A.C.C.G.C.T.	625
SAR.55 Pakistan	.....T.....G.....G.T.G.G.T.....T.A.C.C.G.C.T.	625
Mexico	.....T.....G.....G.T.G.G.T.....T.A.C.C.G.C.T.	625
KS2.87 China	.....T.....G.....G.T.G.G.T.....T.A.C.C.G.C.T.	625
D11093 China	.....T.....G.....G.T.G.G.T.....T.A.C.C.G.C.T.	625
D11092 China	.....T.....G.....G.T.G.G.T.....T.A.C.C.G.C.T.	625
Myanmar	.....T.....G.....G.T.G.G.T.....T.A.C.C.G.C.T.	625
HEV-T1 China	.....T.....G.....G.T.G.G.T.....T.A.C.C.G.C.T.	625
US2 USA	.....T.....G.....G.T.G.G.T.....T.A.C.C.G.C.T.	625
US1 USA	.....T.....G.....G.T.G.G.T.....T.A.C.C.G.C.T.	625
Nepal	.....T.....G.....G.T.G.G.T.....T.A.C.C.G.C.T.	625
Swine HEV USA	.....T.....G.....G.T.G.G.T.....T.A.C.C.G.C.T.	625
Avian HEV USA	.....T.....G.....G.T.G.G.T.....T.A.C.C.G.C.T.	500

\*\*\*ORF3  
(avian HEV)

RdelaHEV Primer

# THE FUTURE OF THE FUTURE

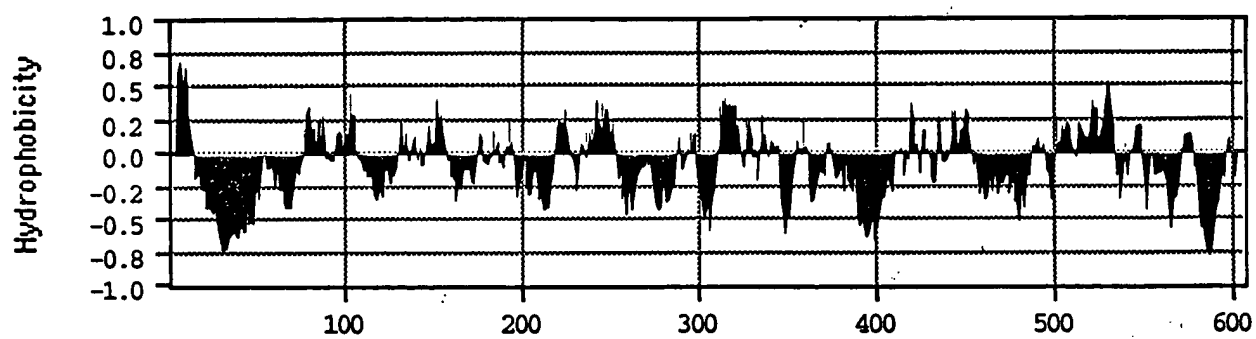


Fig. 4



SECRET 0486200T

Fig. 5A

Burma	KRPRILLILLINPLINCPAPFPQCP	SORRRRCRRSOGGFMGDRVDSPF	AIPIYIHTNPPADVTAAAGAGPRVQ	PARPLGSAWRDQORPAVASRRPTT	AGALPLTAVAPAHDTF	120
Hydarabad India	.....P.....L.....	.....N.....V.....	.....A.....S.....	.....A.....P.....	.....A.....	120
Madras India	.....A.....	.....A.....	.....A.....	.....A.....	.....A.....	120
HETIAN China	.....T.....	.....A.S.S.L.....	.....T.....	.....SA.....A.....	.....A.....	120
SAR.55 Pakistan	.....IV.....	.....A.....	.....A.....	.....A.....	.....A.....	120
Mexico	.....S AL F FVL.....	.....Q-A.C.....	.....L.....IP.....	.....A.P.I.....	.....S.AST..AP..S.....	120
KSS.87 China	.....AV.....FVL.....	.....A.....	.....L.....A.VSQP.....	.....P.P.....	.....S.SA.P..SAP.....	120
D11093 china	.....AV.....	.....A.....S.....	.....L.....A.VSQP.....	.....P.P.....	.....S.S.P..S.P.....	120
D11092 China	.....G.....	.....C.N.A.....	.....L.....A.VSQP.....	.....P.P.....	.....S.ST..SAP.....	120
HEV.TI China	.....S.....	.....N.....	.....V.....	.....A.....	.....A.....	120
Myanmar	.....S.....	.....I.....	.....I.....	.....A.....	.....A.....	120
US2 USA	.....S.....	.....S.....	.....P.....	.....A.....	.....A.....	120
US1 USA	.....S.....	.....R.NS.....	.....AQ.STQ.....	.....BGAV.P.....	.....D.VT.AG.R.....	65
Nepal	SECRET M.A.CCIVSRGS-ITL PACGRGQR	.....R.NS.....	.....AQ.STQ.....	.....BGAV.P.....	.....D.VT.AG.R.....	65
Swine HEV USA	.....S.....	.....I.....	.....I.....	.....A.....	.....A.....	120
U22532 India	.....S.....	.....N.....	.....V.....	.....A.....	.....A.....	120
AKL.90 India	.....S.....	.....C.....	.....P.....	.....A.....	.....A.....	120
Morocco	.....S.....	.....I.....	.....I.....	.....A.....	.....A.....	120
Egypt93	.....S.....	.....I.....	.....I.....	.....A.....	.....A.....	120
Egypt94	.....S.....	.....I.....	.....I.....	.....A.....	.....A.....	120
Avian HEV USA	SECRET M.A.CCIVSRGS-ITL PACGRGQR	.....R.NS.....	.....AQ.STQ.....	.....BGAV.P.....	.....D.VT.AG.R.....	65
Burma	FVPDVSRCAILRRQYBLETSP	LTSSVATGNTLVLYAAPLSPL	LLPLQDCINTHIMATEASNYAQYR	VARATIRYRLVFNAGVYASISF	WPTTTTTSVDMNSITSDVRILVQ	240
Hydarabad India	.....P.....	.....P.....	.....P.....	.....P.....	.....P.....	240
Madras India	.....V.....	.....V.....	.....V.....	.....V.....	.....V.....	240
HETIAN China	.....S.....	.....N.P.....	.....G.....	.....G.....	.....G.....	240
SAR.55 Pakistan	.....TI.....	.....P.....	.....V.....	.....V.....	.....V.....	240
Mexico	.....S.....	.....N.....	.....V.....	.....V.....	.....V.....	240
KSS.87 China	.....S.....	.....N.....	.....V.....	.....V.....	.....V.....	240
D11093 china	.....S.....	.....N.....	.....V.....	.....V.....	.....V.....	240
D11092 China	.....S.....	.....N.....	.....V.....	.....V.....	.....V.....	240
HEV.TI China	.....S.....	.....N.....	.....V.....	.....V.....	.....V.....	240
Myanmar	.....S.....	.....N.....	.....V.....	.....V.....	.....V.....	240
US2 USA	.....S.....	.....N.....	.....V.....	.....V.....	.....V.....	240
US1 USA	.....S.....	.....N.....	.....V.....	.....V.....	.....V.....	240
Nepal	.....S.....	.....N.....	.....V.....	.....V.....	.....V.....	240
Swine HEV USA	.....S.....	.....N.....	.....V.....	.....V.....	.....V.....	240
U22532 India	.....S.....	.....N.....	.....V.....	.....V.....	.....V.....	240
AKL.90 India	.....S.....	.....N.....	.....V.....	.....V.....	.....V.....	240
Morocco	.....S.....	.....N.....	.....V.....	.....V.....	.....V.....	240
Egypt93	.....S.....	.....N.....	.....V.....	.....V.....	.....V.....	240
Egypt94	.....S.....	.....N.....	.....V.....	.....V.....	.....V.....	240
Avian HEV USA	.....S.....	.....N.....	.....V.....	.....V.....	.....V.....	240

Fig. 5B

Burma	ASELVIPSERLHYRNOCMRSVETSCVAEEBATSOLVMLCINOSLVNSVNTPTTCALQLODPALFPRMLTFCNTNTRVSRYSSTARHRLRGADGTAELETTTAAATPFMDLYPTSTNO	360
Hyderabad India	.....P.....	360
Madras India	.....P.....	360
HETIAN China	.....H.....	360
SAR.55 Pakistan	.....P.....	360
Mexico	.....P.....	360
KS5.87 China	.....P.....	360
D11093 china	.....P.....	360
D11092 China	.....P.....	360
HEV.T1 China	.....P.....	360
Myanmar	.....P.....	360
US2 USA	.....P.....	360
US1 USA	.....P.....	360
Nepal	.....P.....	360
Swine HEV USA	.....P.....	360
U22532 India	.....P.....	360
AKL.90 India	.....P.....	360
Morocco	.....P.....	360
Egypt93	.....P.....	360
Egypt94	.....P.....	360
Avian HEV USA	.....P.....	360
Burma	GL.T.H.A.A.K.N.....VS.PQ.D...ML.V.V.TPW...SV.P.P.MV.IK.QL.S.A.T.VKV.P.TIKADPS..TI.A.A.A.VRWGLQ.A	304
Hyderabad India	.....P.....	476
Madras India	.....P.....	476
HETIAN China	.....P.....	476
SAR.55 Pakistan	.....P.....	476
Mexico	.....P.....	476
KS5.87 China	.....P.....	476
D11093 china	.....P.....	476
D11092 China	.....P.....	476
HEV.T1 China	.....P.....	476
Myanmar	.....P.....	476
US2 USA	.....P.....	476
US1 USA	.....P.....	476
Nepal	.....P.....	476
Swine HEV USA	.....P.....	476
U22532 India	.....P.....	476
AKL.90 India	.....P.....	476
Morocco	.....P.....	476
Egypt93	.....P.....	476
Egypt94	.....P.....	476
Avian HEV USA	ED..H.LGV.....V.....ST.LRA.S.Y.....GN.....E.M.D.VN.P.MV.....T.T.TC...G...VD...S.A...K.ALGT..SG...RITGSMQY	424

Burma	AAEYDQSTGSSTOPVYVSDSVTLVNVATCAQAVASLDMTKVTLDCRPLSTIQOYS--KTFVVLPLRGKLSFMEAGTTKAGYPMYNTASTASDQLLVENAACHRVAISTTTTSLQAOPIVS	594
Hyderabad India	.....I.....RP.....	594
Madras India	.....T.....	594
HETIAN China	.....P.VE.....	594
SAR.55 Pakistan	.....C.....	594
Mexico	.....T.....Y.....	594
K55.87 China	.....P.....Y.....	594
D11093 china	.....I.....I.....	594
D11092 China	.....C.....	594
HEV.TI China	.....T.....Y.....	594
Myanmar	.....P.....Y.....	594
US2 USA	.....T.....Y.....	594
US1 USA	.....T.....Y.....	594
Nepal	.....T.....Y.....	594
Swine HEV USA	.....T.....Y.....	594
U22532 India	.....T.....Y.....	594
AKL.90 India	.....T.....Y.....	594
Morocco	.....T.....Y.....	594
Egypt93	.....T.....Y.....	594
Egypt94	.....T.....Y.....	594
Avian HEV USA	.....T.....Y.....	594
Burma	VTNAELLFQSV.Q.YFCAGSTHNVH.LI.VR.P.S.V...A.V.VQVK.VDAS.GSNR.AA..AF..AV.GP--QQ...F.Q..S.HQEWIVFLQF--BS.VMYA..NML-QK---S38	594
Hyderabad India	ISAVAVLAPHSLALLEDTLDYPARAHTDDPCFCRPLGQCAFQS---TVAEIQLRLKVKCKTREL--	660
Madras India	.....G.....	655
HETIAN China	.....M.....	660
SAR.55 Pakistan	.....V.....M.....	660
Mexico	.....A.....S.....F.....G.....A.....	659
K55.87 China	.....T.....M.....	660
D11093 china	.....M.....	660
D11092 China	.....M.....	660
HEV.TI China	.....GV.....A.....A.....G.....Y.....	658
Myanmar	.....G.....V.....I.....C.....	660
US2 USA	.....G.....V.....I.....T.....S.....	660
US1 USA	.....G.....V.....I.....T.....S.....	660
Nepal	.....G.....V.....I.....T.....S.....	660
Swine HEV USA	.....G.....V.....I.....T.....S.....	660
U22532 India	.....G.....V.....I.....T.....S.....	660
AKL.90 India	.....G.....V.....I.....T.....S.....	660
Morocco	.....G.....V.....I.....T.....S.....	660
Egypt93	.....G.....V.....I.....T.....S.....	660
Egypt94	.....G.....V.....I.....T.....S.....	660
Avian HEV USA	-SDTSI.FEVRPIQASDQ--FWFLAH..CG.D.TT.L...RT.CR.APEDQSP.TR..LDRLSR.FPSPP	606

[illegible]

Fig. 6

Fig. 7

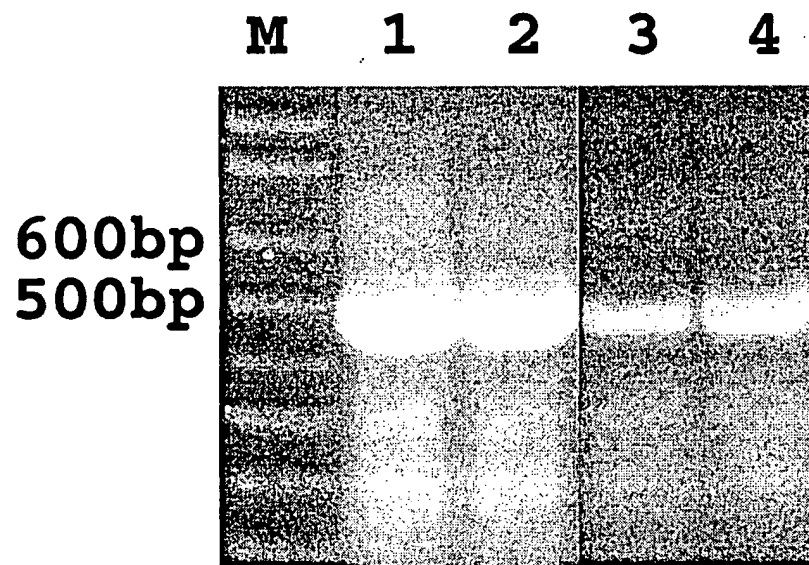


Fig. 8A

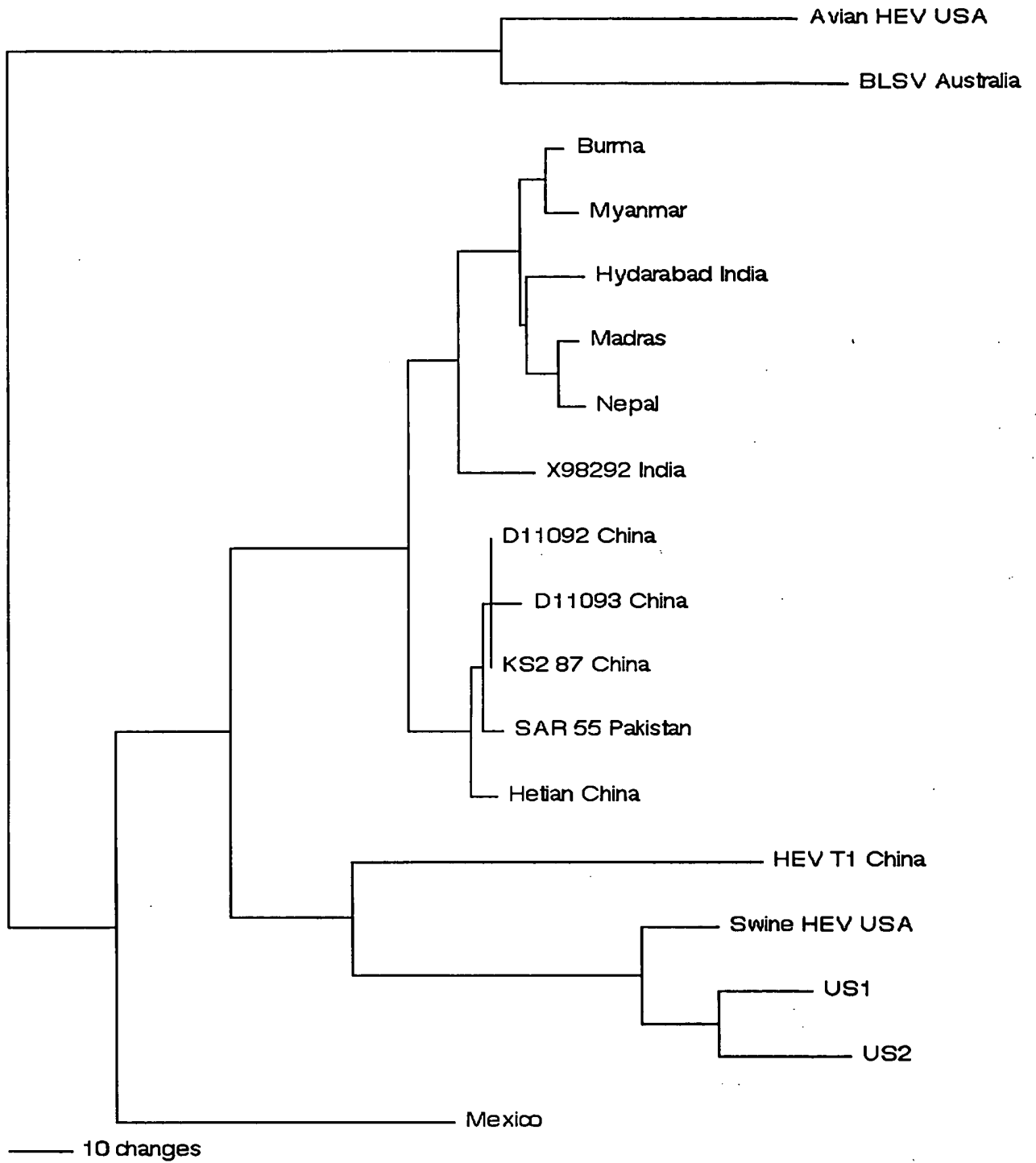


Fig. 8B

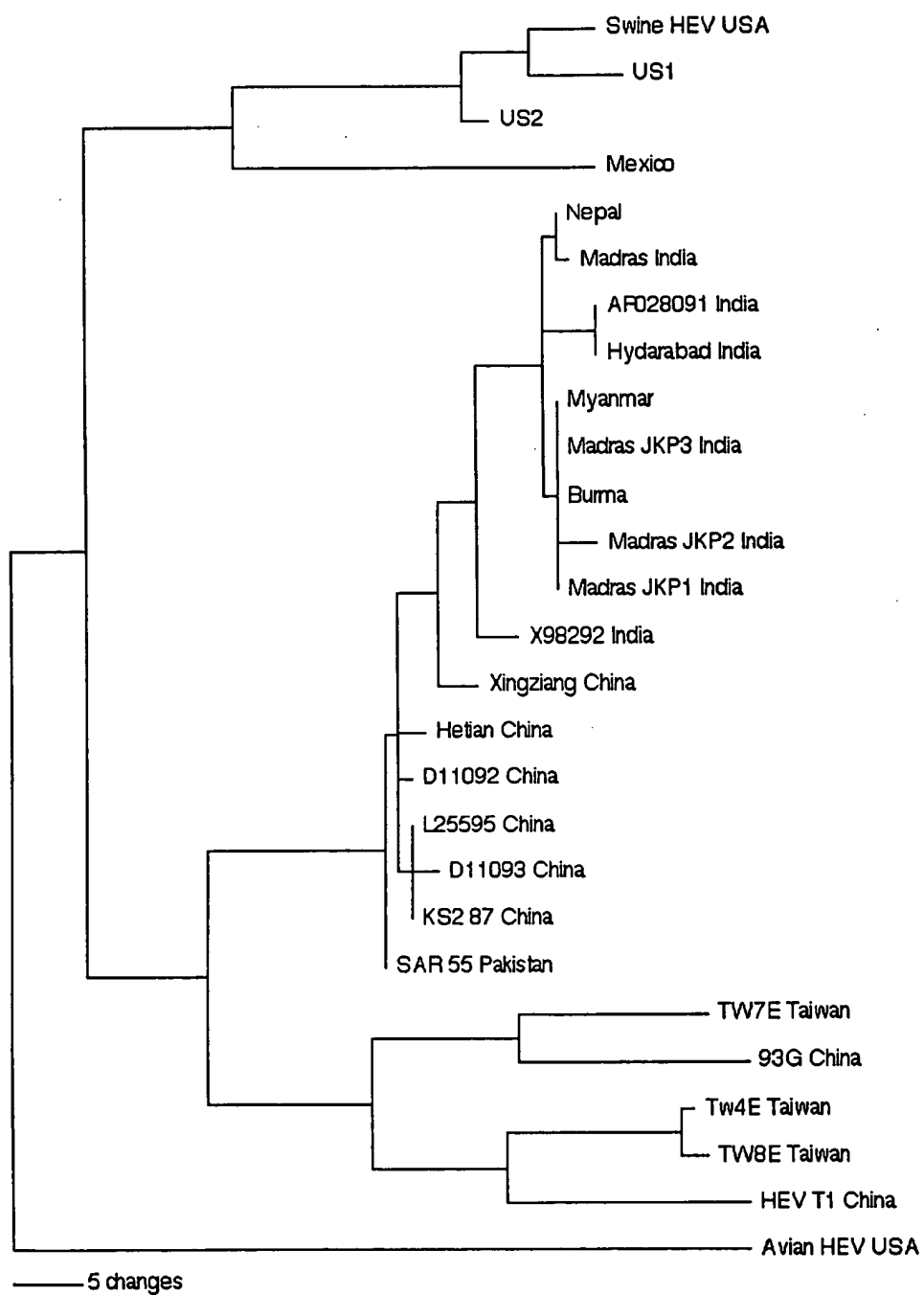


Fig. 8C

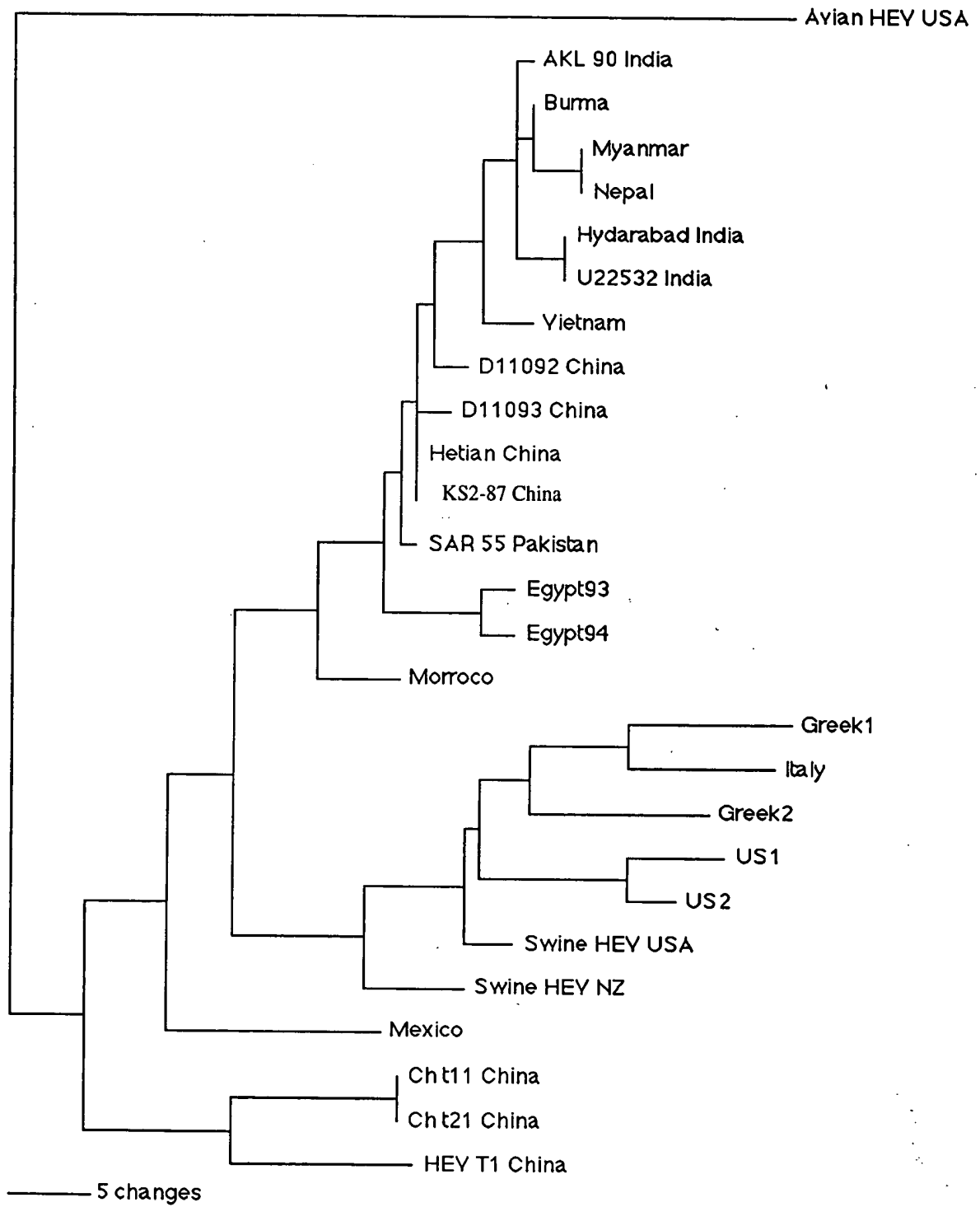




Fig. 9A

ACCAGCATTGGATTTCGATGGACGCTGTTTAACGAGCGCCGTTGATCTTGGG  
TTGCAGCCTACCAGCTGGCGCACCGTATCCCACCGTTGCCCTTGGGACGTTT  
GTATATTTTTGCGTACTGATTATCCGACTATCACCACAACCAGTAGGGTGCT  
GCGGTCTGTTGTGTTTACCGGTGAAACCATTGGTCAGAAGATAGTGTTTACC  
CAGGTGGCCAAGCAGTCGAACCCCGGTCCATAACGGTCCATGAGGCGCAG  
GGCAGTACTTTTGATCAGACTACTATAATCGCCACGTTAGATGCTCGTGGCC  
TTATAGCTTCATCTCGCGCGCATGCCATAGTTGCGCTAACCCGCCACCGGGA  
GCGCTGTAGTGTGATTGATGTTGGTGGGGTGCTGGTCGAGATTGGAGTTACT  
GATGCCATGTTTAACAATATCGAAATGCAGCTTGTGCGACCTGATGCTGCAG  
CCCCTGCCGGGGTGCTACGAGCCCCAGACGACACCGTGGATGGCTTGTTGGA  
CATACCCCGGCCACACTGATGTAGCGGCGGTGTTAACAGCTGAGGCGATT  
GGGCATGCGCCCCCTGAATTGGCCGCCATAAATCCACCCGGGCCTGTATTGG  
AGCAGGGCCTATTATACATGCCGGCCAGGCTTGATGGGCGTGATGAGGTTGT  
TAAGCTCCAGCTGTCGGATACTGTACACTGCCGCCTGGCTGCACCCACTAGC  
CGTCTTGCGGTGATTAACACATTGGTTGGGCGGTACGGTAAAGCCACTAAGC  
TGCTTGAGGTTGAATATGACTTAATGGACACTATTGCGCAGTTCTGGCATCA  
TATCGGACCAATCAACCCCTCAACACTGGAGTATGCAGAGATGTGCGAGGC  
CATGCTTAGTAAGGGCCAGGATGGGTCCTTGATTGTACATCTGGATTTACAG  
GATGCTGATTGTTCTCGCATAACATTCTTCCAGAAGGACTGCGCTAAATTTA  
CGCTGGATGACCCTGTTGCACACGGTAAAGTGGGACAGGGGATATCTGCGT  
GGCCGAAAACCTTGTGTGCACTTTTCGGCCCCCTGGTTCCGGGCTATAGAGAA  
GCACCTTGTTGGCTGGGTACCCCCAGGTTATTACTATGGGGACCTGTACACG  
GAAGCCGATCTGCATCGTTCTGTGCTTTGCGCGCCTGCTGGTCACCTTGTTTT  
TGAGAATGATTTCTCAGAGTTTGACTCAACGCAGAATAATGTGTCCCTTGAT  
CTCGAATGTGAATTGATGCGCAGGTTTGGGATGCCCGATTGGATGGTAGCCT  
TGTACCATCTTGTTTCGATCATACTGGCTCTTGGTTGCCCCGAAAGAAGCCCTT  
CGTGGCTGTTGGAAAAAACACTCTGGTGAGCCGGGCACCCTTTTGTGGAATA  
CAGTTTGGAACATGACTGTGTTGCATCATGTTTATGAGTTTGATCGACCAAG  
TGTGTTGTGTTTCAAAGGTGATGATAGTGTCGTTGTCTGTGAATCGGTGCGC

Fig. 9B

GCCCGTCCAGAGGGCGTTAGTCTCGTGGCAGACTGCGGGCTAAAAATGAAG  
GACAAGACCGGCCCGTGTGGCGCCTTTTCCAACCTGCTGATCTTCCCGGGAG  
CTGGTGTGTCTGCGACCTGTTACGGCAGTGGGGCCGCTTGACTGACAAGAA  
CTGGGGGGCCCGACATTCAGCGGATGCAGGACCTTGAGCAAGCGTGTAAGGA  
TTTTGTTGCACGTGTTGTAACCTCAGGGTAAAGAGATGTTGACCATCCAGCTT  
GTGGCGGGTTATTATGGTGTGGAAGTTGGTATGGTTGAGGTGGTTTGGGGGG  
CTTTGAAGGCCTGCGCCGCGAGCCCGCGAGACCCTAGTGACCAACAGGTTGCC  
GGTACTAACTTATCTAAGGAGGACTGAACAAATAACAATCATTATGCAGT  
CTGCGCGTCCATGTGCCTTAGCTGCCAGTTCTGGTGTGTTGGAGTGCCAGGAA  
AGTGGGGTGGGATGTCGCTGTGTAGATTGTTGCTCATGCTTGCAATGTGCTG  
CGGGGTGTCAAGGGGGCTCCCAAACGCTCCCAGCCGGAGGCAGGCGTGGCCA  
GCGCCGCCGTGACAATTCAGCCCAGTGGAGCACTCAACAACGCCCCGAGGG  
AGCCGTCGGCCCCGCCCCCTCTCACAGACGTTGTCACCGCGGCAGGTACTCGC  
ACGGTACCAGATGTAGATCAAGCCGGTGCCGTGCTGGTGCGCCAGTATAATC  
TAGTGACCAGCCCGTTAGGCCTGGCCACCCTTGGTAGCACCAATGCCTTGCT  
TTATGCCGCACCGGTGTCACCGTTAATGCCGCTTCAGGACGGCACGACGTCT  
AATATCATGAGCACGGAGTCTAGCAACTATGCTCAATACCGTGTACAGGGCC  
TAACTGTCCGCTGGCGCCCAGTTGTGCCAAATGCGGTGGGCGGCTTCTCTAT  
AAGCATGGCCTATTGGCCCCAGACAACATCCACCCCTACAAGCATTGACATG  
AATTCCATCACGTCCACTGACGTCCGTGTGGTGCTTCAGCCGGGCTCTGCTG  
GTTTGCTGACTATACCACATGAGCGTTTGGCGTATAAGAACAATGGTTGGCG  
GTCCGTCGAAACGGTATCCGTCCCACAGGAGGATGCCACGTCCGGCATGCTC  
ATGGTTTGTGTCCACGGGACCCCCTGGAATAGTTATAACCAATAGTGTTTACA  
CCGGGCGGCTTGGTATGGTTGATTTTGCCATAAAGTTACAGCTAAGGAACTT  
GTCGCCCCGTAATACAAATGCCAGGGTCACCCGTGTGAAGGTGACGGCCCC  
ACATACCATCAAGGCTGACCCATCTGGTGCTACCATAACAACAGCAGCTGCG  
GCCAGGTTTATGGCGGATGTGCGTTGGGGCTTGGGCACTGCTGAGGATGGCG  
AAATTGGTCACGGCATCCTTGGTGTCTGTTTAACCTGGCGGACACAGTTTT  
AGGTGGCTTGCCCTCGACACTGCTGCGGGCGGCGAGTGGTCAGTACATGTAC

Fig. 9C

GGCCGGCCTGTGGGGAACGCGAACGGCGAGCCTGAGGTGAAACTGTATATG  
TCGGTTGAGGATGCCGTTAACGATAAACCTATTATGGTCCCCCATGACATCG  
ACCTCGGGACCAGCACTGTCACCTGCCAGGACTATGGGAATCAGCATGTGG  
ATGACCGCCCATCCCCGGCCCCGGCCCCCTAAGCGAGCTTTGGGCACCCTAAG  
GTCAGGGGATGTGTTGCGTATTACTGGCTCCATGCAGTATGTGACTAACGCC  
GAGTTGTTACCGCAGAGTGTGTACAGGGGTACTTTGGGGCCGGCAGCACC  
ATGATGGTGCATAATTTGATCACTGGTGTGCGCGCCCCCGCCAGTTCAGTCG  
ACTGGACGAAGGCAACAGTGGATGGGGTCCAGGTGAAGACTGTCGATGCTA  
GTTCTGGGAGTAATAGGTTTGCAGCGTTACCTGCATTTGGAAAGCCAGCTGT  
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GGAGTGGATTTATTTTCTTCAGAATGGTAGCTCCGTGGTTTGGTATGCATATA  
CTAATATGTTGGGCCAGAAGTCAGATACATCCATTCTTTTTGAGGTCCGGCC  
AATCCAAGCTAGTGATCAGCCTTGGTTTTTTGGCACACCACACTGGCGGCGA  
TGACTGTACCACCTGTCTGCCTCTGGGGTTAAGAACATGTTGCCGCCAGGCG  
CCAGAAGACCAGTCACCTGAGACGCGCCGGCTCCTAGACCGGCTTAGTAGG  
ACATTCCCCTCACCACCCTAATGTCGTGGTTTTTGGGGTTTTAGGTTGATTTTC  
TGTATCTGGGCGTAATTGCCCCTATGTTTAATTTATTGTGATTTTTATAACTG  
TTCATTTGATTATTTATGAAATCCTCCCATCTCGGGCATAGTAAAAAAAAAA  
AAAAA

Fig. 10

PALDFDGRCLTSAVDLGLQPTSWRTVSHRCPWDVCIFLRTDYPTITTTSRVLRSV  
VFTGETIGQKIVFTQVAKQSNPGSITVHEAQGSTFDQTTIATLDARGLIASSRAH  
AIVALTRHRERCSVIDVGGVLVEIGVTDAMFNNIE

1002940-133103

Fig. 11

ACCAGCATTGGATTTTCGATGGACGCTGTTTAACGAGCGCCGTTGATCTTGGG  
TTGCAGCCTACCAGCTGGCGCACCGTATCCCACCGTTGCCCTTGGGACGTTT  
GTATATTTTTGCGTACTGATTATCCGACTATCACCACAACCAGTAGGGTGCT  
GCGGTCTGTTGTGTTTACCGGTGAAACCATTTGGTCAGAAGATAGTGTTTACC  
CAGGTGGCCAAGCAGTCGAACCCCGGGTCCATAACGGTCCATGAGGCGCAG  
GGCAGTACTTTTGATCAGACTACTATAATCGCCACGTTAGATGCTCGTGGCC  
TTATAGCTTCATCTCGCGCGCATGCCATAGTTGCGCTAACCCGCCACCGGGA  
GCGCTGTAGTGTGATTGATGTTGGTGGGGTGCTGGTCGAGATTGGAGTTACT  
GATGCCATGTTTAACAATATCGAA

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Fig. 12

LVRPDAAAPAGVLRAPDDTVDGLLDIPPAHTDVAAVLTAEAIGHAPLELAAINP  
PGPVLEQGLLYMPARLDGRDEVVKLQLSDTVHCRLAAPT SRLAVINTLVGRYG  
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LQDADCSRITFFQKDCAKFTLDDPVAHGKVGQGISA WPKTLCALFGPW FRAIEK  
HLVAGLPPGYYYGDLYTEADLHRSVLCAPAGHLVFENDFSEFDSTQNNVSLDL  
ECEL MRRFGMPDWMVALYHLVRSYWLLVAPKEALRGCWKKHSGEPGTLLWN  
TVWNMTVLHHVYEFDRPSVLCFKGDDSVVVCESVRARPEGVSLVAD`CGLKMK  
DKTGPCGAFSNLLIFPGAGVVCDLLRQWGRLTDKNWGPDIQRMQDLEQACKDF  
VARVVTQGKEMLT IQLVAGYYGVEVGMVEVWVGALKACAAARETLVTNRLP  
VLNLSKED

10025640.12301

Fig. 13

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taaggaggac

Fig. 14

MSLCRLLMLAMCCGVSRGSQTLPAAGRRGQRRRDNSAQWSTQQRPEGAVGP  
APLTDVVTAAGTRTPDQAGAVLVRQYNLVTSPGLATLGSTNALLYAAPV  
SPLMPLQDGTTSNIMSTESSNYAQYRVQGLTVRWRPVVPNAVGGFSISMAYWP  
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EDATSGMLMVCVHGTPWNSYTNVYTGPLGMVDFAIKLQLRNLSPGNTNARV  
TRVKVTAPHTIKADPSGATITTTAAAARFMADVVRWGLGTAEDGEIGHGILGVLF  
NLADTVLGGLPSTLLRAASGQYMYGRPVGNGEPEVKLYMSVEDAVNDKPI  
MVPHDIDLGTSTVTCQDYGNQHVDDRSPAPAPKRALGTLRSGDVLRTGSMQ  
YVTNAELLPQSVSQGYFGAGSTMVHNLITGVRAPASSVDWTKATVDGVQVK  
TVDASSGSNRFAALPAFGKPAVWGPQGAGYFYQYNSTHQEWIYFLQNGSSVV  
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10029013301



Fig. 15

atgtcgtgtgttagattgttgcctcatgcttgaatgtgctgcgggggtgtcaaggggctcccaaacgctcccagccggaggcagg  
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1

[illegible]

Fig. 18A



Fig. 18B



10029840, 123101

10029840-123101



Fig. 19A

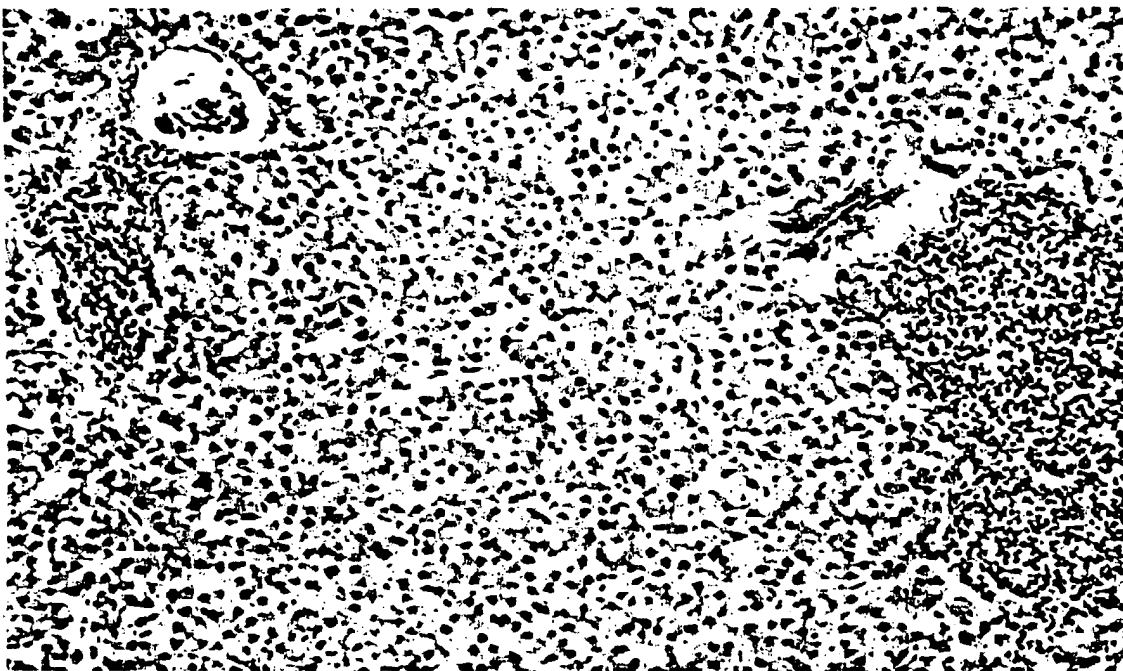


Fig. 19B

Fig. 20

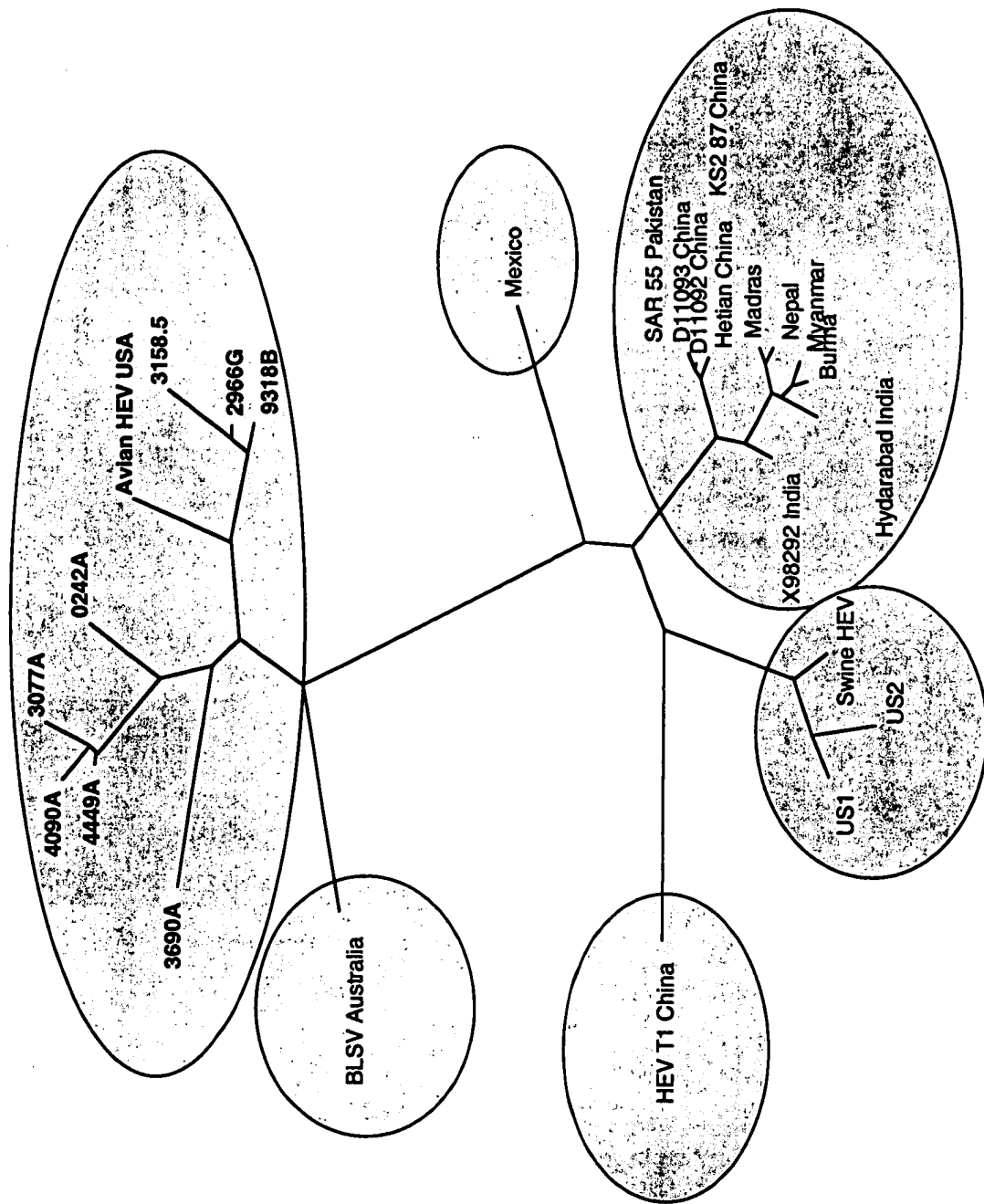


Fig. 21A

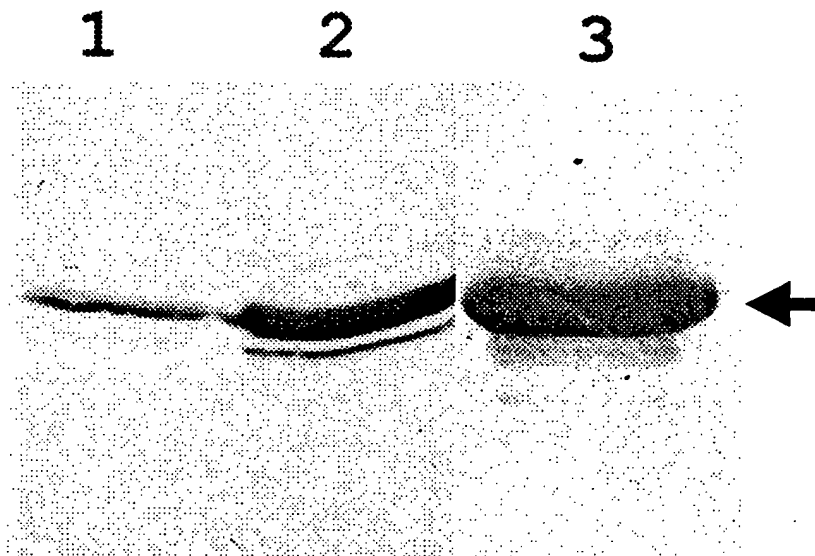
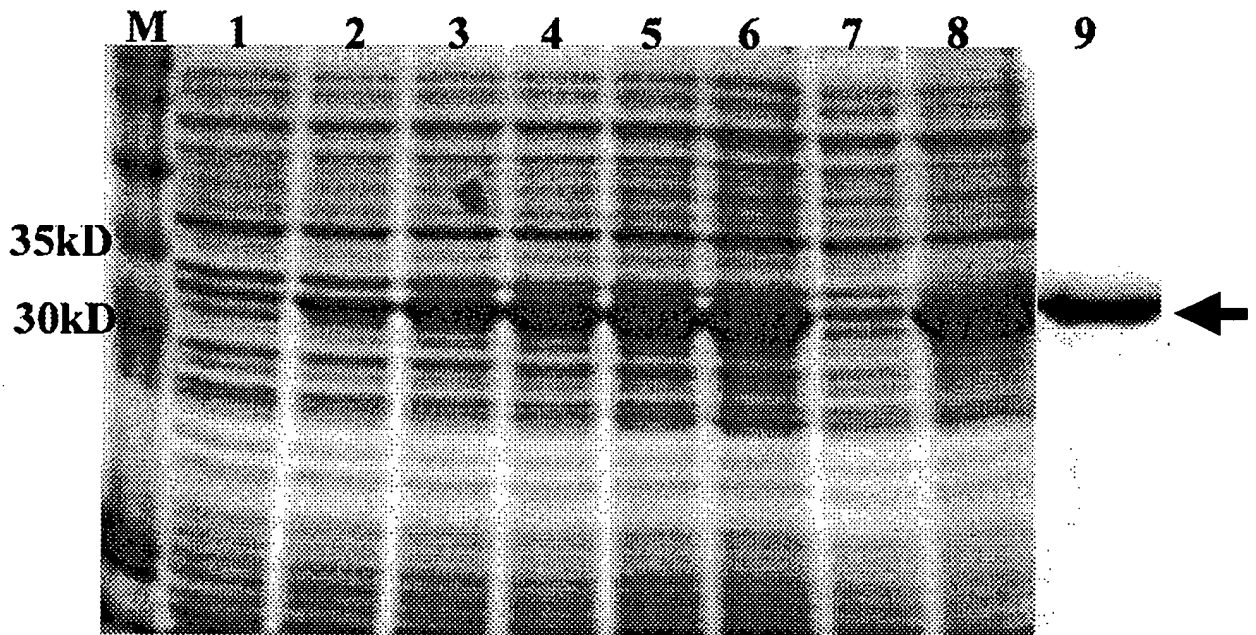


Fig. 21B

Fig. 22A

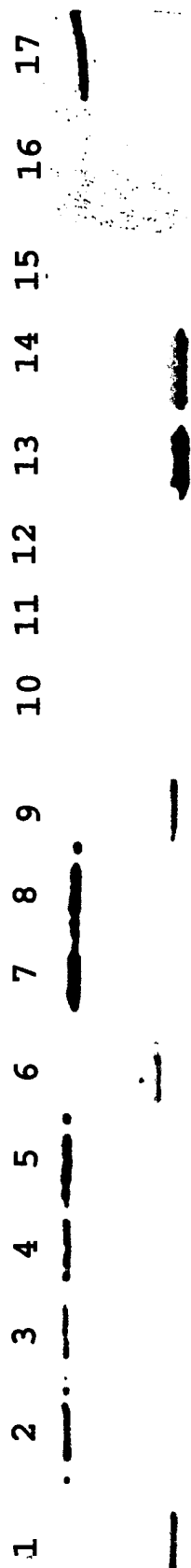




Fig. 22B

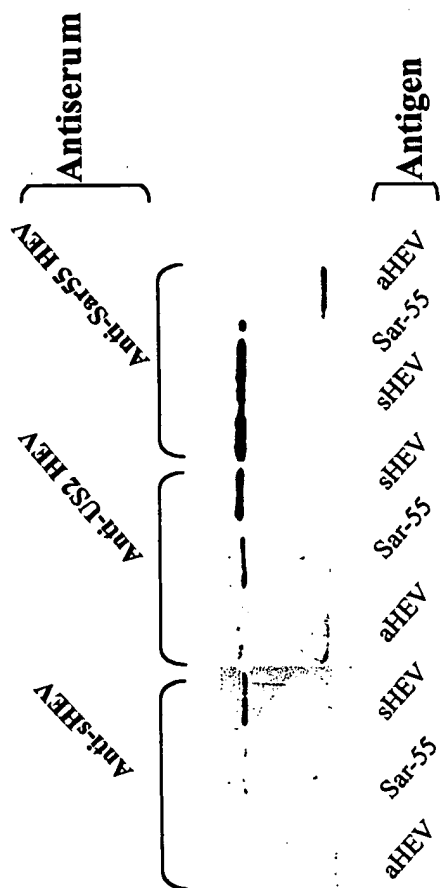


Fig. 22C

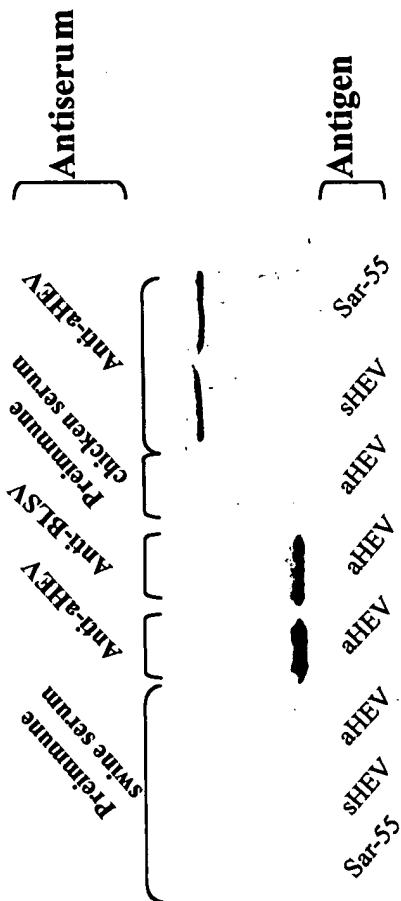
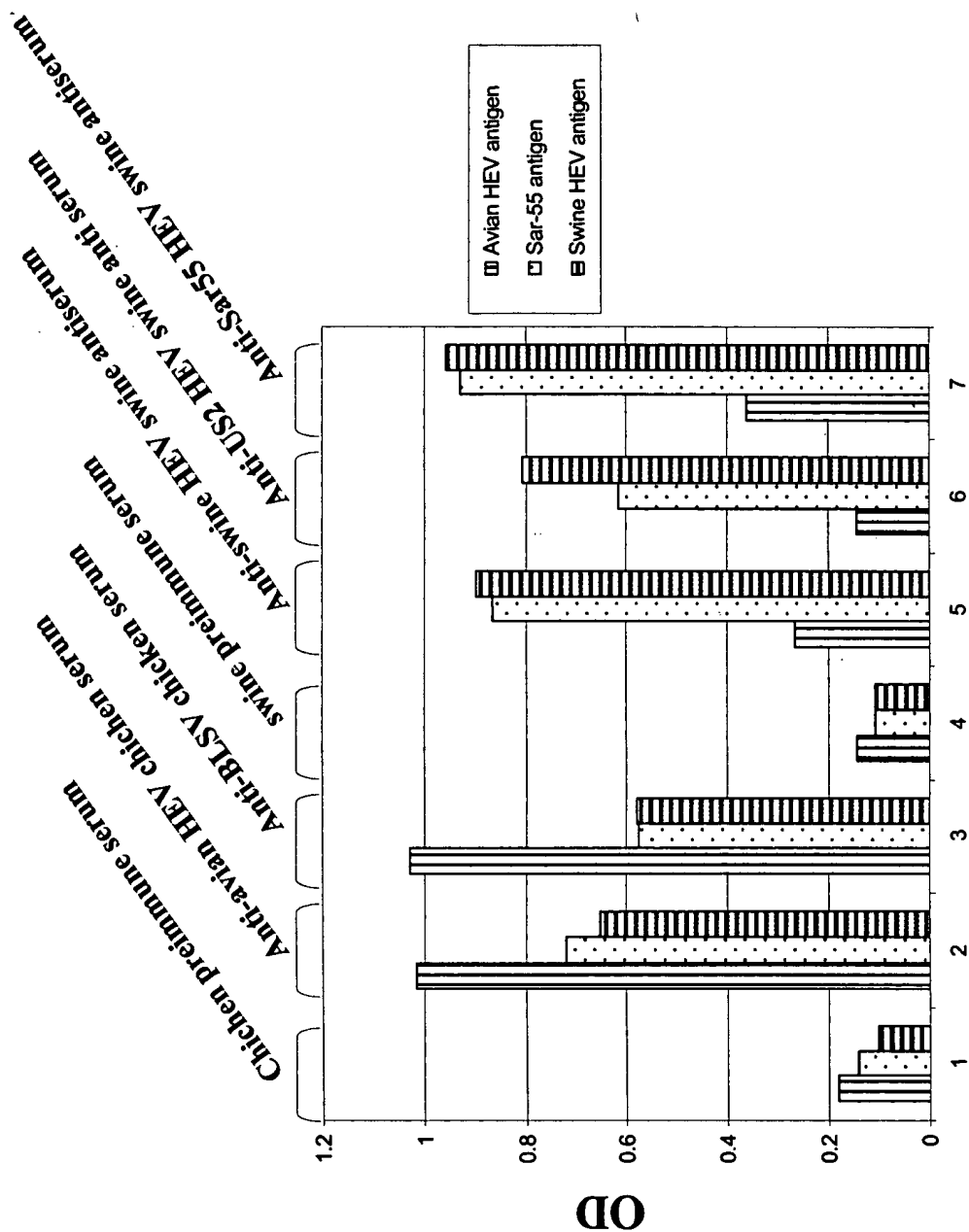


Fig. 23



[illegible]

```
Avian HEV  APEDQSPETRRLLDRLSRTFPSP
Swine HEV  S---TIA.LQ..KMKVGK.RE.--
US-2       S---TIA.LQ..KMKVGK.RE.--
Sar-55     S---TVA.LQ..KMKVGK.REL--
```

Fig. 25A

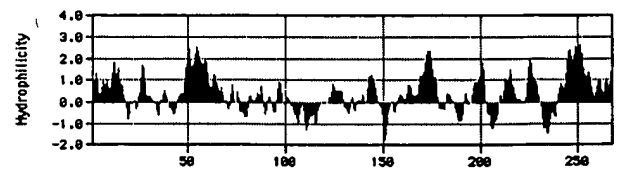
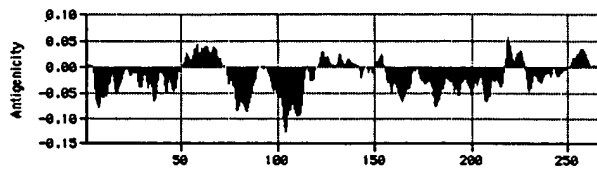


Fig. 25B

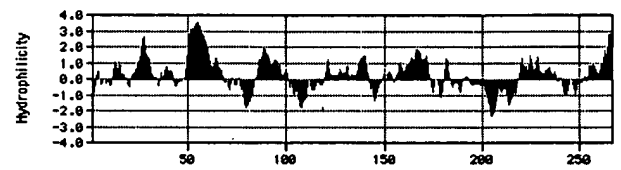
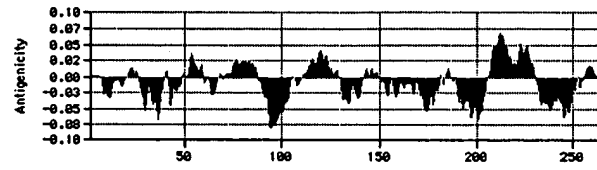


Fig. 25C

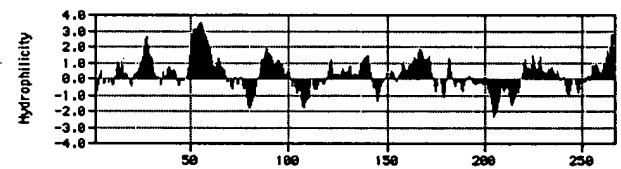
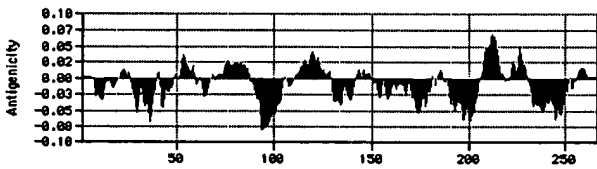


Fig. 25D

